

Method for weaving decorative ribbons with plastic cords and apparatus for same

BACKGROUND OF THE INVENTION

5 FIELD OF THE INVENTION

The present invention relates to a method for weaving decorative ribbons with plastic cords and apparatus for same, characterized in which plastic cords used as warp and threads of another material used as weft are plain woven and arranged at a preset distance from each other into a piece of cloth with a weaving machine, and one end of
10 the cloth proximate to each woven section is cut off so that every woven section in a plastic woven ribbon unit has tassels on one side and the cut loose ends on the other side. Said woven ribbon is then transported by conveyor belt, and beneath the loose ends of woven ribbon in progression, there are a plurality of longitudinally arranged stoves to melt and fuse the loose ends into one body, which is also blocked by the woven section to
15 prevent the plastic cord from being drawn out. The ribbons produced thereof may be used as decorative ribbon in a wide variety of applications and simulate hand-made straw woven umbrella or canopy. The method of the present invention offers convenient, cost-saving way of mass production and hence economic benefits.

DESCRIPTION OF THE RELATED ART

20 Conventional straw woven umbrella makes use of local herbaceous plants as raw

material and made by hands by weaving the raw material onto a bamboo stand. Such herbaceous plants, be it hays or coconut matting, or the like are available only in limited quantity. Weaving a straw canopy by hands is time-consuming and requires considerable labor, and hence costly. The handling and transport of such products are also
5 inconvenient, making mass production impractical. The applications of the products are also limited, which cannot be reused by others.

Therefore, there is an improved method as shown in Fig. 4. Such method uses plastic cords 1 as raw material to attain the effect of a straw decorative ribbon. A strip of cloth 2 is used to fix the plastic cord 1, and the plastic cord 1 is folded into halves and
10 then hung on the strip of cloth 2 by sewing stitches to form a straw decorative ribbon. However, to fix the plastic cord 1 to the strip of cloth 2, the plastic cord has to be folded into halves manually and hung on the strip of cloth 2 one by one. The manual hanging and fixing of the plastic cords may not be able to give a neatly arranged tassels, and the resulting work inevitably has a disordered appearance. The speed of production is also
15 slow and it is more costly since it requires more labor.

In view of the shortcoming of the prior art as mentioned above, the inventor of the present invention, based on years of experience, develops the method disclosed herein to enhance the production capacity and reduce cost for the making of decorative ribbons.

20 SUMMARY OF THE INVENTION

The primary objective of the present invention is to provide a method for weaving decorative ribbons with plastic cord and apparatus for same, in which plastic cords of

different colors are woven into a piece of cloth by plain weaving method using a weaving machine, and the distance between the woven sections can be set as desired, and then one end of the cloth proximate to the woven section is cut off so each unit of plastic woven ribbon has loose ends on one side of the woven section and tassel segment on the other
5 side. The cloth then passes through at least one stove arranged beneath to melt and fuse the cut loose ends into one body to prevent the plastic cords from being drawn out from the woven section, and the woven sections can be stacked or lined up with each other and sewed around the canopy of the umbrella to form a straw umbrella structure which is easy to store and transport, and can be mass produced at reduced cost.

10 Another objective of the present invention is to provide a method for weaving decorative ribbons with plastic cords and apparatus for same, wherein said unit of plastic woven ribbon can be used as decorative ribbon.

15 **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1A is a drawing of plastic cords used as warp or weft for weaving according to the present invention.

Figure 1B is a drawing of plastic cloth woven using plastic cords by plain weaving method with a weaving machine.

20 Figure 1C is the structural drawing of a plastic woven ribbon formed according to the present invention.

Figure 1D is a drawing showing the action of fusing the cut loose ends of the

woven ribbon into one body as it passes by a stove.

Figure 2 is a drawing showing an example of the present invention used in straw umbrella unfolded.

Figure 3 is a drawing showing an example of the present invention used in straw
5 umbrella folded.

Figure 4 is a perspective drawing of straw decorative ribbon in prior art.

DETAILED DESCRIPTION OF THE INVENTION

As shown in Fig. 1A, the plastic cord 1 may be of different colors and used as
10 warp or weft in weaving. Referring to Fig. 1B, the plastic cords are woven by plain
weaving method using a weaving machine into a woven section 11 of desired width, and
by setting the space between woven section 11 and woven section 11', plastic cloth of
any desired length is produced. At the same time, virtual cutoff threads 112, 112' on one
side of woven section 111 or 111' are cut off so that every woven section 11 of a plastic
15 woven ribbon unit A has a tassel segment 12 on one side of woven section 11, and cut
loose ends 13 on the other side (as shown in Fig. 1C), and every plastic woven ribbon
unit A can be cut to the desired width. Referring to Fig. 1D, said woven ribbon unit A is
transported by conveyor belt, and at least one stove F is arranged at a proper location
beneath the routing of said cut loose ends to melt and fuse the loose ends into one body,
20 which is also blocked by woven section 11 to keep the plastic cords 1 from separating or
being drawn out from the woven section 11. A plurality of aforesaid stove F (F') may be
arranged longitudinally to ensure all cut loose ends 13 are melt uniformly.

Referring to Fig. 2, by stacking or lining up said plastic woven ribbon unit A on the canopy of an umbrella and sewed onto umbrella fabric, a straw umbrella like structure may be obtained (Fig. 2), which may be folded and unfolded (as shown in Fig. 3). Furthermore, a support base may be attached to the pole of the umbrella B to make its storage and transport easier. Such umbrella may be mass produced at reduced cost.

The woven section 11 in the plastic woven ribbon unit A may be used to decorate all kinds of purses, clothing, Christmas ornaments and other articles.

As described above, the present invention offers the benefits of mass production at reduced costs and meets the criteria of inventive step and utility.